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10/726,223	12/01/2003	Joseph H. Martin		3741

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Donald W. Meeker
Patent Agent
924 East Ocean Front #E
Newport Beach, CA 92661

EXAMINER

CADUGAN, ERICA E

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,223

Applicant(s)

MARTIN, JOSEPH H.

Examiner

Erica E. Cadugan

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "spindle" of claim 8 and the "seventy-two tooth worm gear that is driven by a worm" of claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Note that these features are explicitly described on page 10 as "not shown".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, there is no axis or frame of reference provided in the claim for determining what is meant by "radial".

In claim 9, "the two opposing parallel faces" lacks sufficient antecedent basis in the claim. Note that claim 1 sets forth "at least two opposing parallel faces capable of being held in a ...vertical position" and "at least two opposing faces capable of being held in ... a horizontal position". Thus, firstly, it is possible that there are plural sets of "at least two opposing parallel faces" set forth (in one interpretation), and secondly, "at least two..." were set forth in claim 1 (meaning that "the at least two" or "said at least two" would be required to provide antecedent basis for a per se limitation of "at least two...").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

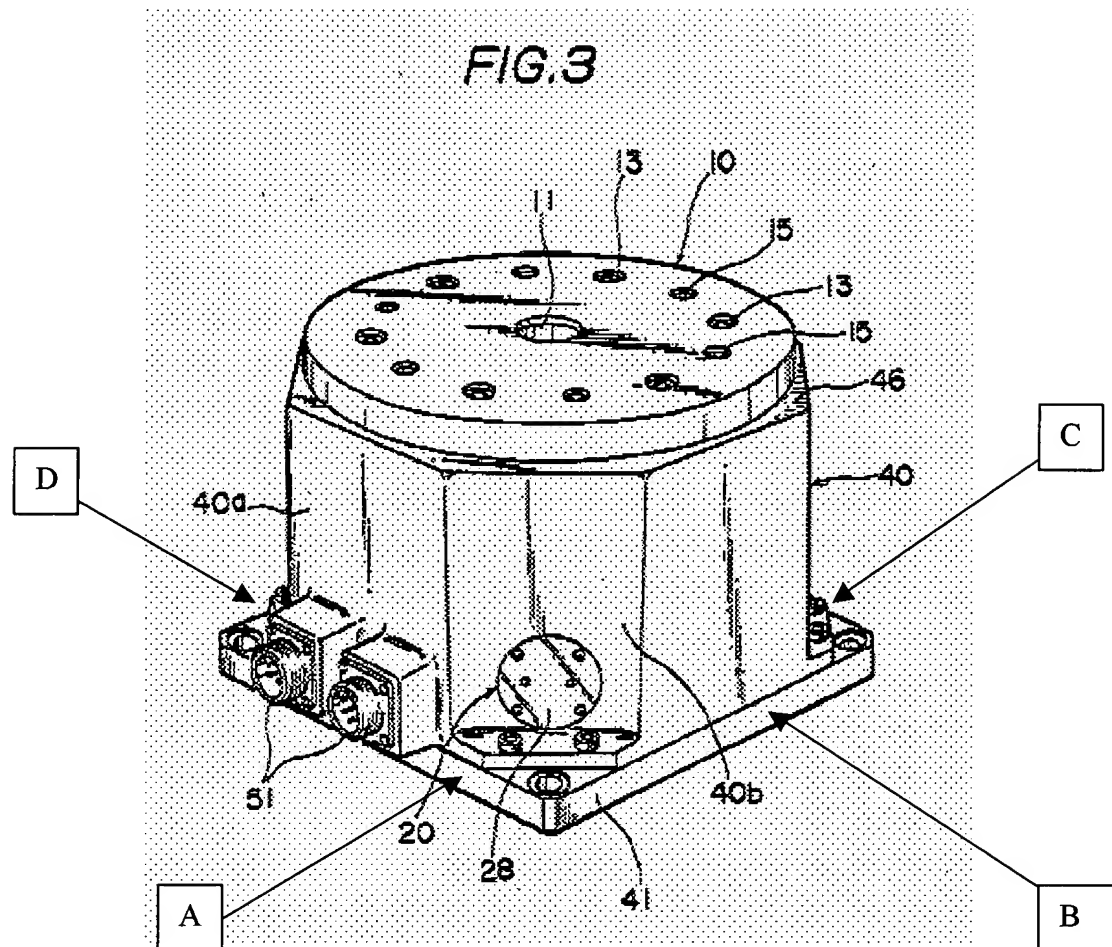
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-2, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,899,998 to Teramachi.

Teramachi teaches an indexer device that includes a “block” 40 on which a rotary table or “work holding element” 10 is mounted (Figures 1-3) for rotation via a servo motor 16 which forms part of a “control means” (col. col. 3, line 65 through col. 4, line 40, for example). Additionally, Teramachi teaches work holders including work piece 1 attaching holes 15 (Figure 1, for example) that are considered “means for controlling the mounting of the work piece on the work holding element and the removal of the work piece from the work holding element” (see col. 3, lines 13-18).

Note that there is nothing that would prevent the indexer taught by Teramachi from being “instantly mountable and alignable” in a vise on a milling machine, and thus, as broadly claimed, the indexer taught by Teramachi is considered to be “able” to be instantly mounted and “able” to be aligned. It is noted that the claims are drawn to the indexer, and not the combination of the indexer and a milling machine.

Additionally, it is noted that any two opposing sides of the “block” 40 are “capable” of being held in a vise such that the block is either vertical or horizontal.



Specifically, as shown in the above labeled reproduction of Figure 3 from Teramachi, note that the indexer can be gripped by a vice to be held in a position where the table 10 extends in a generally horizontal plane (which position could be considered to be the “vertical position” of the block in the claim in that the block is thus positioned to rotate the table about a vertical axis, or which could be alternatively considered to be the “horizontal position” of the block in the claim in that the block holds the table in a position where it extends in a generally horizontal plane) by opposing vise jaws that contact sides B and D, or by opposing vise jaws that contact sides A and C. Additionally, particularly in light of the teachings of Teramachi that the indexer

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“can be used in any position” and that the indexer can be used in “the vertical state in which the rotary table 10 rotates in a vertical plane” (col. 4, lines 50-58), it is noted that if the indexer was repositioned such that the table 10 rotates in a generally vertical plane, then it is noted that the indexer can be so arranged such that opposing vise jaws grip opposing sides A and C or grip opposing sides B and D in order to hold the device with the table 10 rotating in the vertical plane.

Regarding claim 2, as broadly claimed, it is noted that the table 10 is a “cylinder” that rotates, and that the holes 15 are used to chuck the workpieces to the table.

Regarding claim 6, the servo motor in combination with the control unit 50 is considered to be “computer controlled” (see col. 3, line 35 through col. 4, line 40, for example).

Re claim 1, Teramachi is silent about the material of the “block” 40, and thus does not explicitly teach that the block is made of “metal”.

Re claim 7, Teramachi is silent about the size of the indexer, and thus does not explicitly teach that it is “sized to fit any standard six inch machine tool vise”.

However, re claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the block out of whatever known material as was desired or expedient to an end user, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

Re claim 7, it would have been obvious to one having ordinary skill in the art to have made the indexer whatever size as was desired or expedient to an end user, since such a modification would have involved a mere change in the size of a component. A change in size is

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generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

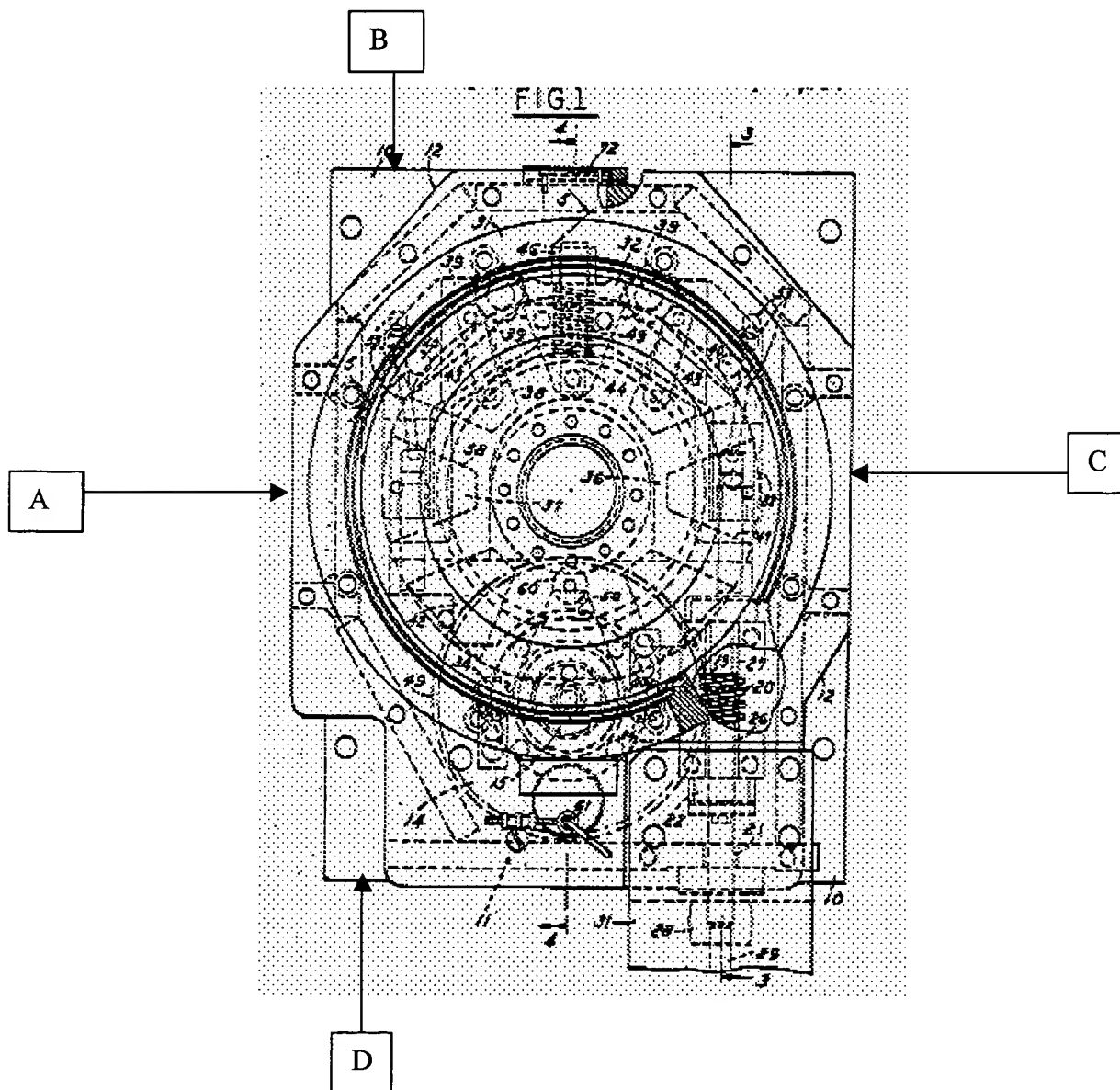
7. Claims 1-2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,684,114 to Bell, Sr.

Bell, Sr. teaches an indexer device that includes a “block”, including at least elements 10, 11, and 12, on which a rotary table or “work holding element” 32 is mounted (Figures 1-3) for rotation via a motor 30 that drives worm/worm wheel 20 and 14 in rotation to thereby drive the table 32 in rotation, which driving arrangement is considered to form part of a “control means” (Figures 1-3, col. 2, lines 21-66).

Re the claimed “means for controlling the mounting of the work piece on the work holding element and the removal of the work piece from the work holding element”, it is noted that inherently, there must be some sort of work holding/clamping structure for holding a work piece on the described “work table”, or else the table would not be able to accurately hold and position a workpiece thereon as the table was indexed (noting that accurate positioning is described in col. 1, lines 10-13 as being desirable). Whatever inherently-existing structure there is to hold the workpiece thus constitutes the claimed “means for controlling the mounting of the workpiece...”.

Note that there is nothing that would prevent the indexer taught by Bell, Sr. from being “instantly mountable and alignable” in a vise on a milling machine, and thus, as broadly claimed, the indexer taught by Bell, Sr. is considered to be “able” to be instantly mounted and “able” to be aligned. It is noted that the claims are drawn to the indexer, and not the combination of the indexer and a milling machine.

Additionally, it is noted that any two opposing sides of the “block” are “capable” of being held in a vise such that the block is either vertical or horizontal.



Specifically, as shown in the above labeled reproduction of Figure 1 from Bell, Sr., note that the indexer can be gripped by a vise to be held in a position where the table 32 extends in a generally horizontal plane (which position could be considered to be the “vertical position” of

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the block in the claim in that the block is thus positioned to rotate the table about a vertical axis, or which could be alternatively considered to be the “horizontal position” of the block in the claim in that the block holds the table in a position where it extends in a generally horizontal plane) by opposing vise jaws that contact sides B and D, or by opposing vise jaws that contact sides A and C. Additionally, it is noted that if the indexer was repositioned such that the table 32 rotates in a generally vertical plane, then it is noted that the indexer can be arranged such that opposing vise jaws grip opposing sides A and C or grip opposing sides B and D in order to hold the device with the table 10 rotating in the vertical plane.

Re claim 2, whatever structure that there is that inherently exists (as described previously) to grip or “chuck” the workpiece is inherently mounted in the table 32. It is noted that table 32 is a “cylinder”.

Re claim 1, Bell, Sr. is silent about the material of the “block”, and thus does not explicitly teach that the block is made of “metal”.

Re claim 7, Bell, Sr. is silent about the size of the indexer, and thus does not explicitly teach that it is “sized to fit any standard six inch machine tool vise”.

Re claim 8, while Bell, Sr. does teach the “spindle” in the form of the central shaft of the table 32, which “spindle” is driven by a worm/worm gear arrangement as described previously, Bell, Sr. is silent as to the specific number of teeth of the worm gear and is silent as to the amount of rotation of the “spindle” that is produced by one revolution of the worm.

However, re claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the block out of whatever known material as was desired or expedient to an end user, since it has been held to be within the general skill of a

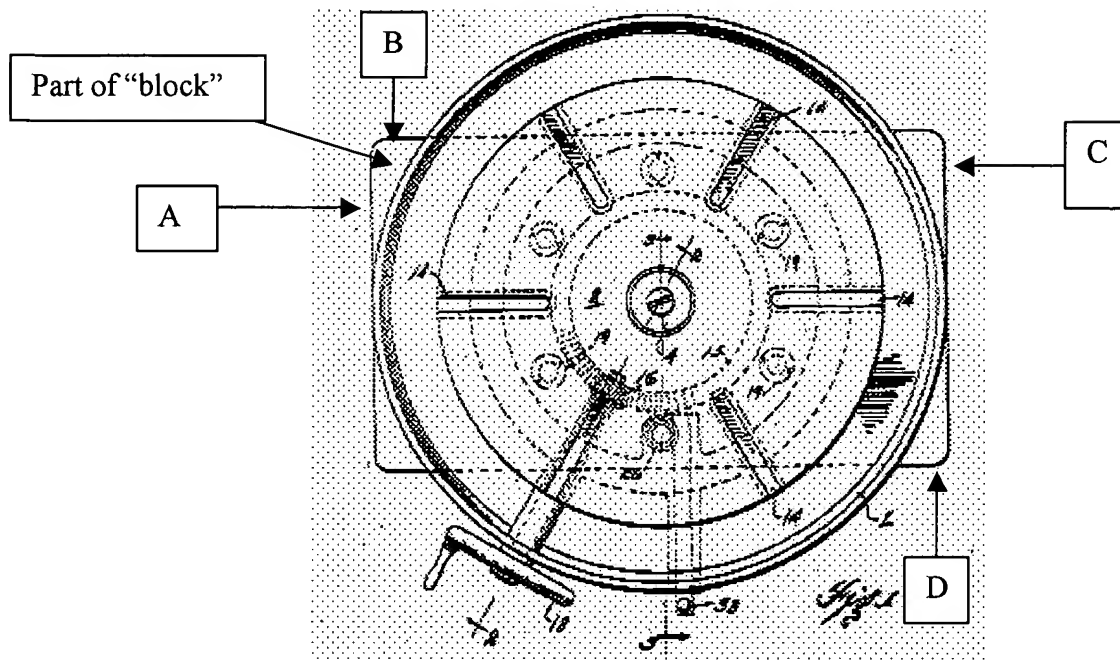
worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

Re claim 7, it would have been obvious to one having ordinary skill in the art to have made the indexer whatever size as was desired or expedient to an end user, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

Re claim 8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided as many teeth on the worm gear as was desired or expedient to have provided whatever amount of rotation of the spindle per revelation of the worm was desired or expedient, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

8. Claims 1-2, 4-5, and 7, claim 4 is as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 1,946,835 to Buhr.

Buhr teaches an indexer device that includes a “block” including the rectangular element labeled in the reproduction of Figure 1 below and also including base member 1 (Figure 2).



Rotary table or “work holding element” 2 is mounted (Figures 1-3) for rotation on the “block” via an operating wheel 18 that is used in conjunction with a gearing arrangement (shown in Figure 2, for example), which wheel 18 and gearing arrangement form part of a “control means” (Figures 1-3). Additionally, Buhr teaches work holders wherein radial grooves 14 are provided to enable support of the workpieces (page 1, lines 77-80 and Figure 1), which grooves are considered part of the “means for controlling the mounting of the work piece on the work holding element and the removal of the work piece from the work holding element”.

Note that there is nothing that would prevent the indexer taught by Buhr from being “instantly mountable and alignable” in a vise on a milling machine, and thus, as broadly claimed, the indexer taught by Buhr is considered to be “able” to be instantly mounted and “able” to be aligned. It is noted that the claims are drawn to the indexer, and not the combination of the indexer and a milling machine. Note also that Buhr explicitly teaches that base member 1 is

“understood as being adapted to be supported in any necessary manner in the machine tool in which the index plate is to be used” (page 1, lines 50-54).

Additionally, it is noted that any two opposing sides of the “block” are “capable” of being held in a vise such that the block is either vertical or horizontal.

Specifically, as shown in the above labeled reproduction of Figure 1 from Buhr, note that the indexer can be gripped by a vice to be held in a position where the table 2 extends in a generally horizontal plane (which position could be considered to be the “vertical position” of the block in the claim in that the block is thus positioned to rotate the table about a vertical axis, or which could be alternatively considered to be the “horizontal position” of the block in the claim in that the block holds the table in a position where it extends in a generally horizontal plane) by opposing vise jaws that contact sides B and D, or by opposing vise jaws that contact sides A and C. Additionally, it is noted that if the indexer was repositioned such that the table 2 rotates in a generally vertical plane, then it is noted that the indexer can be arranged such that opposing vise jaws grip opposing sides A and C or grip opposing sides B and D in order to hold the device with the table 2 rotating in the vertical plane.

Re claim 2, as broadly claimed, the grooves 14 are used to “chuck” a workpiece to the table 2, and are located mounted in the table 2. Note that the table is, as broadly claimed, a “cylinder”.

Re claim 4, inherently, there must be some sort of structure that engages the grooves 14 to enable the workpieces to be clamped to the table (i.e., the grooves all by themselves don’t function to clamp anything). Whatever structure there inherently is that so engages these grooves is considered to be the claimed “brackets”.

Re claim 1, Buhr is silent about the material of the “block”, and thus does not explicitly teach that the block is made of “metal”.

Re claim 7, Buhr is silent about the size of the indexer, and thus does not explicitly teach that it is “sized to fit any standard six inch machine tool vise”.

However, re claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the block out of whatever known material as was desired or expedient to an end user, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

Re claim 7, it would have been obvious to one having ordinary skill in the art to have made the indexer whatever size as was desired or expedient to an end user, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

9. Claims 1-2, 5, 7, and 9, 9 is as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 2,406,906 to Saunders in view of U.S. Pat. No. 1,946,835 to Buhr, for example.

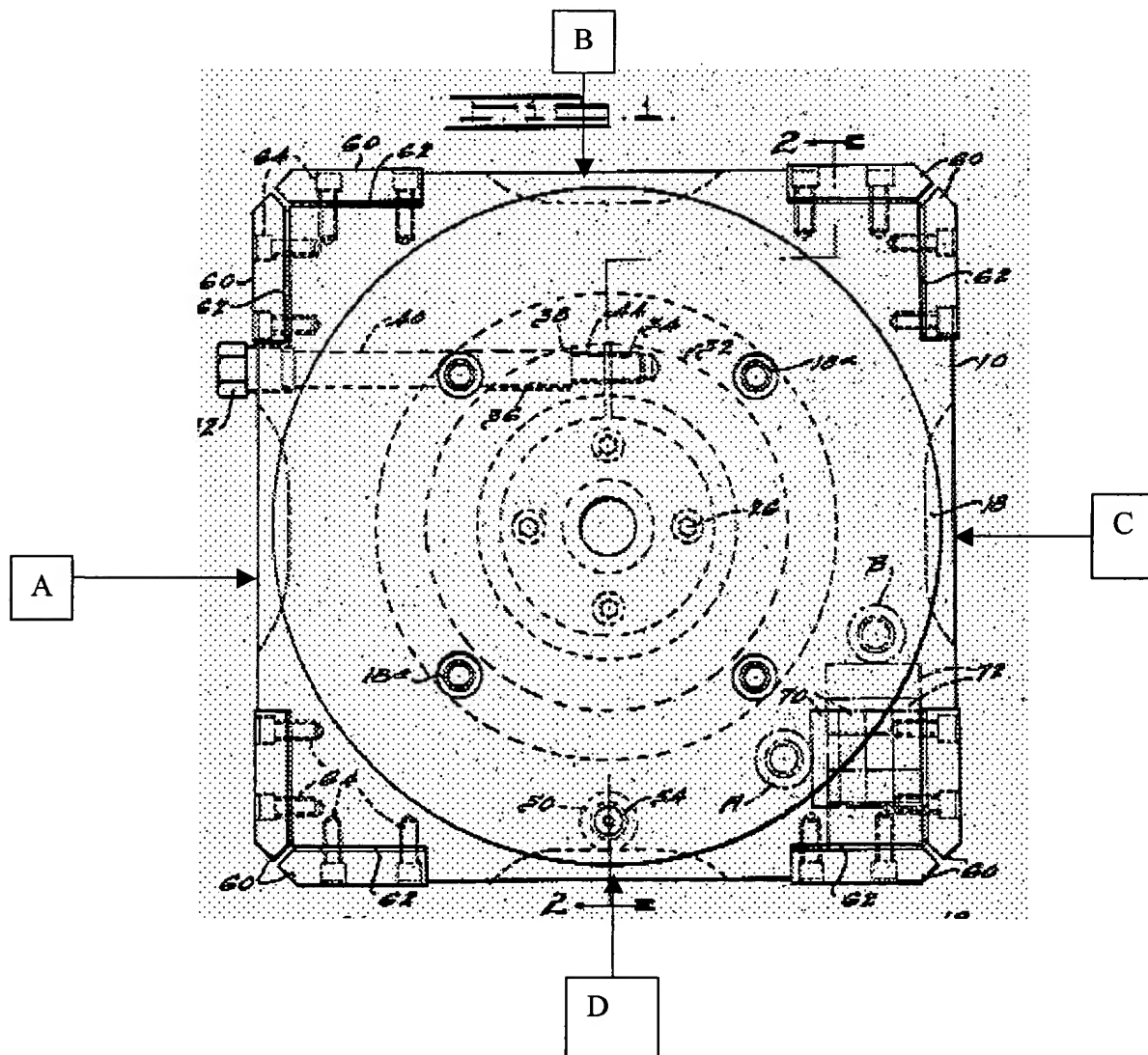
Saunders teaches an indexer device that includes a “block” 10 on which a rotary table or “work holding element” 18 is mounted (Figures 1-2) for rotation (when bolt 40 is loosened, the table can be indexed, see col. 3, lines 5-17). Additionally, Saunders teaches work holders including work piece-attaching holes 18a (Figure 1 and col. 2, lines 6-11, for example) that are

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considered “means for controlling the mounting of the work piece on the work holding element and the removal of the work piece from the work holding element”.

Note that there is nothing that would prevent the indexer taught by Saunders from being “instantly mountable and alignable” in a vise on a milling machine, and thus, as broadly claimed, the indexer taught by Saunders is considered to be “able” to be instantly mounted and “able” to be aligned. It is noted that the claims are drawn to the indexer, and not the combination of the indexer and a milling machine.

Additionally, it is noted that any two opposing sides of the “block” 10 are “capable” of being held in a vise such that the block is either vertical or horizontal.



Specifically, as shown in the above labeled reproduction of Figure 1 from Saunders, note that the indexer can be gripped by a vice to be held in a position where the table 18 extends in a generally horizontal plane (which position could be considered to be the “vertical position” of the block in the claim in that the block is thus positioned to rotate the table about a vertical axis, or which could be alternatively considered to be the “horizontal position” of the block in the claim in that the block holds the table in a position where it extends in a generally horizontal plane) by opposing vise jaws that contact sides B and D, or by opposing vise jaws that contact sides A and C. Additionally, it is noted that if the indexer was repositioned such that the table 2 rotates in a generally vertical plane, then it is noted that the indexer can be arranged such that opposing vise jaws grip opposing sides A and C or grip opposing sides B and D in order to hold the device with the table 18 rotating in the vertical plane.

Re claim 2, as broadly claimed, the holes 18a are used to “chuck” a workpiece to the table 18, and are located mounted in the table 18. Note that the table is, as broadly claimed, a “cylinder”.

Re claim 9, note that grooves 44, one of which is shown in Figure 2, are located in each of the aforescribed four sides A-D (Figure 1), and are used “for reception of suitable or conventional clamping means (not shown) employed for clamping the base 10 to the table of the supporting surface of a machine tool or the like” (col. 3, lines 18-22). Thus, at least as broadly claimed, these grooves 44 serve to “align” the block 10 as they are engaged by the clamping means.

Re claim 1, Saunders is silent about the material of the “block”, and thus does not explicitly teach that the block is made of “metal”. Additionally re claim 1 (and thus re claim 5), it does not appear that Saunders teaches any structure that could be considered the claimed “control means for rotating the work holding element to specific desired points of rotation so that the work piece can be machined by the milling machine”.

Re claim 7, Saunders is silent about the size of the indexer, and thus does not explicitly teach that it is “sized to fit any standard six inch machine tool vise”.

Re the “control means”, Buhr teaches the use of a hand crank 18 used in conjunction with a gearing arrangement (see Figures 1-3) to perform indexing of a rotary table 2 relative to a base.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the hand crank and gearing arrangement taught by Buhr to the device taught by Saunders for the purpose of increasing the accuracy of positioning of the plate taught by Saunders, as would be a benefit readily understood by one having ordinary skill in the art.

Additionally, re claim 1, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the block out of whatever known material as was desired or expedient to an end user, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. See also Ballas Liquidating Co. v. Allied industries of Kansas, Inc. (DC Kans) 205 USPQ 331.

Also, re claim 7, it would have been obvious to one having ordinary skill in the art to have made the indexer whatever size as was desired or expedient to an end user, since such a

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modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 4,684,114 to Bell, Sr. as applied to claims 1-2 above, and further in view of U.S. Pat. No. 6,149,358 to Montague, for example.

Bell, Sr. teaches all aspects of the claimed invention as described above, but is silent about the specific structure and the workings thereof of the device that is used to hold the workpiece on the rotary work table 32, and thus does not explicitly teach that the “means for controlling the mounting and removal of the work piece” comprises a “pneumatic control enabling instant mounting and removal” as set forth in claim 3.

Montague teaches an apparatus for supporting workpieces on a plate at a machining center, wherein work holding devices 33 (Figure 2) is fluid actuated via piston 17 (Figures 1-3 and col. 2, lines 16-67 and col. 3, lines 1-3, for example). Note that the generic “fluid” encompasses the well-known “air” used in a pneumatic system.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the specific work holding devices 33 taught by Montague for the generic work holding devices taught by Bell, Sr., for the purpose of providing a clamp that is versatile in that it may be used to clamp a workpiece in varying orientations (col. 1, lines 63-67), and for the purpose of providing a clamp that is versatile in that it enables a workpiece to be clamped by either of upwardly or downwardly directed forces as described in col. 1, lines 59-62 of Montague.

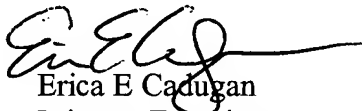
Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note specifically that U.S. Pat. No. 2,716,911 to Focke shows clamping jaws that are hooked at the end such that they would be capable of engaging a groove such as that (44) taught by US 2,406,906 to Saunders.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Erica E Cadugan
Primary Examiner
Art Unit 3722